

Student BAGS Number _____

**Florida State University College of Law
Examination Cover Sheet**

Antitrust (Law 6550)
Professor Aviram
Fall Semester 2004: December 6, 2004
Number of Pages: 5 (including this page)
Time Allotted: 4 hours

Exam Instructions

1. **Permissible material:** This is an open book exam. You may use any materials you want, whether in hardcopy or electronic format. You may not communicate with anyone about the exam until it is over, and you may not access the internet while taking the exam.
2. **Length limit:**
 - a. If you type the exam on a computer, it should not exceed 2,000 words. If you handwrite your exam, it should not exceed 200 lines.
 - b. **For every 50 words (typed exams) / 5 lines (handwritten exams) in excess of the length limit, two points will be taken off the exam's raw score.**
 - c. If you type your exam, please write at the end of it the word count (e.g., "Word Count: 1,489 words"). If you handwrite your exam, please do a similar line count. The words/line used in reporting the word/line count are not calculated in the word/line count itself. **Failure to do so will result in a reduction of one point from the raw score.**
3. **Anonymity:** The exams are graded anonymously. Do not put your name or anything else that may identify you (except for your BAGS number) on the exam.
4. **Legibility:** If you handwrite your exam, please write legibly. I will do my best to read your handwriting, but will have to disregard writing that is too small to read or otherwise illegible.
5. **Writing the exam:**
 - a. You should give appropriate case and statutory authority for your answers, stating how each cited case/statutory provision relates to your answer.
 - b. Length limit permitting, answer all issues that arise from the fact pattern, even if your conclusion on one of the issues is dispositive to other issues.
 - c. If you think a question is unclear or cannot be decided without additional facts, state clearly what facts you believe to be necessary to answer the question. Length limit permitting, try to discuss the applicable rule and result for the various possible fact patterns.
6. **"Fact" pattern is fiction:** The "facts" presented in the exam were constructed for an educational purpose, and were not intended to refer to or inform about any real person or event.

Good Luck!

The Exam Fact Pattern

Note: The fact pattern of this exam loosely imports characters and some of the setting of the novel “Catch-22” by Joseph Heller. Though the plot takes place during World War II, in locations outside the U.S., please answer the exam questions as if the events took place today, and U.S. antitrust laws applied to the events regardless of the location in which they took place.

Prelude: The formation of M&M, Inc.

Colonel Cathcart, commander of the 256th bomber squadron of the U.S. Air Force, was facing his biggest problem since the squadron was deployed in Pianosa, an island in the Mediterranean Sea off the coast of Italy. His mission was clear: Cathcart wanted to become a General. The means to achieving this mission were also clear: the squadron under his command had to excel in something, becoming sufficiently conspicuous to attract the Daily Evening Post to run a story about them. With that publicity, Cathcart was certain of his promotion.

He considered having his squadron excel in some obvious statistics, such as the number of targets hit, the accuracy of the bombing runs or a minimum number of friendly casualties. The problem was that all bomber squadrons aimed for those same goals, and the fierce competition between them ensured that his squadron could never be #1. He had to pick another statistic to excel in; one that would not face competition from other squadrons.

Then the idea hit him: his squadron could be #1 in the number of combat missions flown per pilot. All that it required was that he would force his pilots to fly more missions. Most bomber squadrons, including his own, had a rule that a pilot’s tour of duty concluded after flying 30 combat missions, at which point the pilot returned to the U.S. That meant that all other squadrons never exceeded 30 missions per pilot. By changing this rule he could increase his squadron’s “missions per pilot” statistic significantly, and make it to the pages of the Daily Evening News. The change must be made gradually, he decided. For now, he would require flying 40 missions.

“Lieutenant Milo Minderbinder reporting for duty, Sir.” Cathcart raised his head to look at the junior officer who distracted his train of thought.

“Who are you?”

“I’m a pilot, sir. Sent to reinforce the squadron.”

Cathcart was no mathematical genius, but he realized that incorporating a new pilot into the squadron would lower the average number of missions flown per pilot. He could not let that happen. “Lieutenant Minderbinder, you are assigned as commander of the mess hall. It’s a great responsibility. Don’t let me down.”

* * *

Milo turned out to be an excellent mess officer. Within a week, he had bartered with the locals on the island, trading spare ammunition for pasta. The members of the 256th now had a choice of seven different kinds of pasta. Then Milo's plans expanded.

"Sir," he approached Cathcart, "I'd like to borrow three of the bombers. Cantaloupes are selling at low prices in Malta. If I could take three bombers to Malta and barter with the locals, we could transport the cantaloupes and improve our dessert selection."

Cathcart was about to decline the request. They were fighting a war and cantaloupes were an unnecessary luxury. But then he realized that the squadron could achieve distinction faster if the statistic he was aiming for was "most missions flown per pilot per plane". By diverting a few planes to mess hall duty, he could improve that statistic without antagonizing the pilots by increasing further the number of missions they had to fly.

Soon Milo's operations spanned the entire Mediterranean: cantaloupes from Malta, dried fruit from Tunisia, olives from Greece and even wine & cheese from German-occupied France. Cathcart generously diverted over half of the squadron's bombers to Milo's use, the food selection just kept getting better and better and morale in the squadron soared. Seizing this opportunity, Cathcart increased the number of required missions to 50.

Though Milo's mission was to supply the squadron with the best food in the U.S. Air Force, he could not help accumulating vast profits (mainly because he did not have to pay for the use of the bombers as transport planes). To avert envious claims that he was enriching himself, Milo formed M&M, Inc. (short for Milo & Minderbinder), and distributed one share of the company to each member of the squadron (all of those shares except for his own, however, were of the non-voting class). Having exploited every culinary-related business opportunity in the region and under pressure from Cathcart to use more planes, Milo decided to expand his operations.

M&M considers the cotton market: During a visit to Cairo to swap artillery shells for goat cheese, Milo was presented with a wonderful opportunity: Egyptian cotton. Cotton is grown mainly in India, Egypt and the U.S. Egyptian cotton is regarded as having the highest quality, and is used mostly for high-end fashionable clothes. Indian and American cotton were considered inferior to Egyptian cotton in quality, and comparable to each other (they are used primarily in lower-end clothes). Due to the use of more modern technology and exploiting economies of scale, American cotton is 15% less expensive to produce than Indian cotton. Indian and Egyptian cotton cost roughly the same to produce. Egyptian cotton sells for 100% more than Indian cotton and 110% more than American cotton.

Because of the desirability of Egyptian cotton, all the land in Egypt that is suitable for cotton growth is already used to grow cotton. It is the unique combination of climate and soil that gives Egyptian cotton its quality. Growing the same plants elsewhere would result in inferior cotton equivalent to the Indian and American varieties.

Raw cotton is sold primarily in spot transactions on exchanges (very little cotton is purchased through long-term contracts). Market shares of the production of raw cotton (assuming a combined American, Egyptian & Indian cotton market) are:

	By dollar sales	By tons	By acres of land on which cotton is currently grown	Cotton land reserves ¹
American	36%	45%	35%	45%
Egyptian	34%	20%	25%	5%
Indian	30%	35%	40%	50%

Egypt had about 500 independent cotton producers. However, three Egyptian cotton producers control the majority of cotton-growing lands: Egyptian Cotton Company (ECC), North African Cotton (NAC) and United Textile Company (UTC). Because of economies of scale, the large producers have slightly lower costs of production. Market shares of cotton production within Egypt are:

	By dollar sales	By tons	By acres of land on which cotton is currently grown	Cotton land reserves ²
ECC	30%	31%	29%	29%
NAC	28%	29%	27%	27%
UTC	32%	33%	31%	31%
Others	10%	7%	13%	13%
Total	100%	100%	100%	100%

Raw cotton is bulky and it is economically infeasible to transport it more than 300 miles from the fields. The raw cotton must be threshed and spun into cotton thread at a processing plant. Transportation costs of cotton thread are sufficiently low for it to be economically feasible to transport worldwide. There is only one cotton processing plant in Egypt, owned by the Egyptian government. Egyptian law prohibits anyone else from owning or operating cotton processing plants, and imposes a price cap for cotton fiber sold by the plant to Egyptian customers (there is no price cap for sales to non-Egyptians) [Ignore state action doctrine or international antitrust issues that may arise from this law].

M&M moves into cotton: Milo's first step was purchasing the cotton processing plant from the Egyptian government in return for two bombers and a captured German submarine. He then sent a letter, addressed to the CEOs of the three cotton growers (all three were named in the letter), requesting that they each enter a separate agreement with M&M, under which they will sell all of the cotton they produce to M&M. If they refused, M&M would consider not purchasing cotton from them at all.

Milo then met with each Egyptian CEO separately, reiterating the terms of the letter and the fact that the same deal (and threat of refusing to deal with a firm that rejected the deal) was offered to the other two companies, and M&M would accept no other deal.

¹ This figure includes all the land in the given country in which it would be profitable to grow cotton if cotton prices went up by 5%, whether the land is currently used for growing cotton or for other uses.

² Market shares of cotton land reserves in Egypt are the same as the market shares of acres of land on which cotton is grown, because all the land on which cotton can be grown is already used.

The three CEOs saw the wisdom in Milo's words and each signed a separate agreement with him, under which they agreed to sell all of the cotton they produce to M&M at a price stated in the agreement, for a term of 20 years.

I. [50%] Sanders Industries, an American cotton mill that wanted to gain foothold in the Egyptian cotton processing industry, sues M&M, ECC, NAC and UTC for an injunction against the three agreements, alleging horizontal price fixing of raw cotton and group refusal to deal in violation of Section 1 of the Sherman Act, and in the alternative with three counts of monopolization and/or an attempt to monopolize Egyptian cotton processing through exclusive dealing and individual refusal to deal with it (Sanders), in violation of Section 2 of the Sherman Act. Analyze this suit (ignoring the issues of standing and antitrust injury).

A slump in the cotton industry: A change in fashion caused a slump in the demand for cotton, resulting in very low cotton prices. Then the price of cotton mysteriously began to rise. Rumors spread that the three big Egyptian cotton growers have agreed to create an 'emergency fund' that purchases cotton on the exchange and disposed of the cotton by engulfing small cotton balls in chocolate and selling them to Milo, to be served as desert at the 256th Bomber Squadron mess hall. When questioned about serving chocolate-covered cotton Milo stated that 'I considered serving cotton candy but this is better – it's the real thing'. The Egyptian cotton growers deny the allegations.

London Textile Group (LTG), a British wholesaler of cotton thread, began investigating the allegations. LTG acquired the minutes of a meeting between the three Egyptian cotton companies' CEOs, which took place a week before cotton prices began to rise. The minutes report that the CEOs discussed the low cotton prices and all of them expressed dissatisfaction with the low price of raw cotton. Other than the minutes (which state nothing else of relevance) and Milo's statement, LTG could not acquire additional evidence.

II. [20%] LTG sues ECC, NAC and UTC alleging price fixing of raw cotton in violation of Section 1 of the Sherman Act. Analyze this suit (again, ignoring the issues of standing and antitrust injury).

M&M expands its cotton operations: The cotton price slump caused many small independent Egyptian cotton growers to declare bankruptcy. M&M acquired as much of their land as it could, and began to operate its own cotton growing business. In several dozen purchases it managed to acquire one half of the production capacity and land of the independent growers (5% of the Egyptian market share by dollar sales, 3.5% by tons and 6.5% by acres of land used). Six months later, M&M filed with the FTC & DoJ a pre-merger notification form, informing that it has signed an agreement to purchase ECC.

III. [30%] As the FTC, analyze whether you should object to the merger of M&M and ECC.

Good Luck!

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Memo on the Final Exam

Grades:

Raw scores were calculated out of a total of 100 points – 50 for part I, 20 for part II, and 30 for part III. Below are the average, median, lowest and highest grades for the exam and for each question separately:

	Average	Median	Lowest	Highest
Entire Exam	47.18	49	29	67
Part I (50%)	26.36	26	20	35
Part II (20%)	9.91	10	0	17
Part III (30%)	12.18	12	4	21

Actual grades were given by fitting the raw scores on a curve determined by the 'class profile' option in the law school's bylaws, as explained in the exam preparation class (i.e., the grade depended not on the absolute raw score of an exam, but on the relative ranking of a given exam's raw score compared to all other exams' raw scores). The class average GPA was 83.91. This course's grade average (which, under the rules, has to be ± 3 points from the class average GPA) was 86.9.

Below I will discuss the answers to the exam questions. These are answers, but not the only answers; some students received credit for very different, but well-explained and correct responses. Also, the memo is not written as an exam should be – it is longer than an exam should be, because I chose to emphasize in this memo some aspects that seemed worth clarifying (while addressing only briefly other aspects that seemed to be clear).

I. [50%] Sanders Industries, an American cotton mill that wanted to gain foothold in the Egyptian cotton processing industry, sues M&M, ECC, NAC and UTC for an injunction against the three agreements, alleging horizontal price fixing of raw cotton and group refusal to deal in violation of Section 1 of the Sherman Act, and in the alternative with three counts of monopolization and/or an attempt to monopolize Egyptian cotton processing through exclusive dealing and individual refusal to deal with it (Sanders), in violation of Section 2 of the Sherman Act. Analyze this suit (ignoring the issues of standing and antitrust injury).

Sanders Industries is making two arguments: (i) A violation of Sherman 1 through horizontal price fixing and group refusal to deal; (ii) Three separate violations of Sherman 2 through individual refusals to deal. Note that even though it could, Sanders is

not alleging a vertical violation of Sherman 1 (i.e., vertical restraints of trade). Therefore, no analysis of this allegation was expected on the exam.

1. Sherman 1 violation allegation

Sherman 1 has three elements: (a) agreement; (b) competitive effect (unreasonable restraint on trade); (c) interstate commerce. Element (c) appears to be satisfied, since raw cotton is produced and distributed all over Egypt (which the exam instructed to treat as if it were within the U.S., and processed cotton (which is affected by market power in the market for raw cotton) is traded globally (and therefore, certainly between states).

(a) Agreement: There are clearly agreements between M&M and each of the cotton growers. However, horizontal price fixing (by definition) and group refusal to deal (under *NYNEX* and *U.S. Healthcare*) require an agreement between rivals. At this point M&M does not produce raw cotton, so to fulfill the agreement element we need to show that the fact pattern indicates an agreement between the three (rival) cotton growers.

The fact that M&M informed each cotton grower that it requires the same terms from its major rivals suggests that there is a horizontal agreement (*Toys R Us, Interstate Circuit*). On the other hand, *Theatre Enterprises* and the dicta in *U.S. Healthcare* suggest that collusion is not inferred if there is a plausible business justification for each rival to independently enter the agreement and/or the rivals do not dominate the vertically-related firm with which they sign separate agreements. Since M&M is the only cotton processor in the area in which it is economically feasible to ship raw cotton, and Egyptian law prohibits the operation of another cotton processor, the cotton growers have to sell exclusively to M&M, so the agreement of exclusive dealing hardly imposes on them, and the threat of M&M's boycott is very significant. Thus, they each have an independent incentive to sign an exclusive dealing agreement with M&M to avoid boycott, and therefore it would be difficult to infer an agreement.

(b) Competitive effect – Per se analysis:

(i) Price fixing: There is no explicit agreement between the cotton growers to fix prices, but each vertical agreement states the same price for cotton, so if the agreements are treated as horizontal, one may argue that they fix prices if their effect is to fix or raise prices (*Socony-Vacuum*). However, the setting of a price for cotton in each vertical agreement is inevitable, so if the agreements have a legitimate business purpose then the agreement is examined under the RoR (*BMI*). Here there is no apparent efficiency; because all growers have to sell to M&M anyway, the agreement seems not to have much effect at all. It may be helpful to acquire more information as to whether this agreement aims to foreclose cotton in anticipation of a change in the Egyptian laws granting M&M a monopoly on processing (analogous to the motive alleged in *U.S. Healthcare*).

(ii) Group refusal to deal: An agreement by the three cotton growers to sell only to M&M may amount to a group refusal to deal with all other cotton producers. If there

are no pro-competitive efficiencies that require the RtD, then it is per se illegal (*Klor's*). Further, if there is a less competitively harmful alternative to the RtD to achieve the same efficiencies then the RtD is per se illegal (*Associated Press*). *Northwest Stationers* specifies the situations in which RtD that is ancillary to pro-competitive efficiencies is analyzed under the RoR, but this analysis is not applicable here, since no procompetitive efficiency is apparent (see below I.1.(c)(ii)).

(c) Competitive effect – RoR analysis:

(i) Competitive effect: If there were other actual or potential cotton processors, the agreement would harm competition by foreclosing the supply of cotton to them from the three major growers. Egyptian law, however, guarantees M&M a monopoly in cotton processing in Egypt, and it is uneconomical to transport raw cotton outside of Egypt, to other potential processors. Therefore, all Egyptian cotton growers have to sell to M&M. Thus, one may wonder why M&M bothered to sign an agreement which obligates the growers to do what economic and legal constraints already force them to do. One possibility which should be explored if more information were available is that M&M expects the Egyptian government to change the law and allow a rival into the market, and is signing the agreement in order to thwart the entry of another rival (because the rival would not have access to about 90% of Egyptian raw cotton for 20 years. If so, the agreement would have significant anticompetitive effects, especially if the MES for cotton processing is greater than the amount or remaining non-foreclosed cotton.

(ii) Efficiencies: The agreement doesn't promise that M&M would purchase all of the grower's cotton; it only obligates the cotton growers not to sell to anyone but M&M. Thus, it does not ensure stable demand for them, but it does ensure M&M a stable supply (and a pre-determined price). This has some efficiency in reducing the risk in the cotton processing business, analogous to the efficiencies in *Tampa Electric*. In that case, the efficiencies justified a 20 year term of agreement. The efficiency is likely less significant in the exam's fact pattern, because (unlike in *Tampa Electric*) the price of processed cotton is unregulated, and it can change immediately in response to changes in the cost of inputs, reducing the cost of uncertainty.

(d) Conclusion: There is probably no horizontal agreement because each cotton grower has an independent reason to enter the agreement with M&M. Thus, there is no Sherman 1 violation. If a horizontal agreement were found, however, it would likely be analyzed under the per se standard both as a group RtD and possibly as price fixing.

2. Sherman 2 violation allegation

Note that a Sanders Industries is not making a Clayton 3 charge (even though it alleges exclusive dealing), so no analysis of Clayton 3 is necessary.

(a) Monopolization: Monopolization requires two elements (*Grinnell*) – (i) the possession of monopoly power in the relevant market; and (ii) willful acquisition or maintenance of that power. Monopolization is a unilateral practice, so each of the big three has to be

analyzed independently. The relevant market is Egyptian raw cotton (see III.1(a)(i)). The companies' market shares vary from 27% to 33% (depending on the company and the measurement unit). *ALCOA* suggests a rule of thumb under which a 30% market share raises a presumption of no market power, and a 60% market share may or may not be sufficient to indicate market power. *Domed Stadium Hotel v. Holiday Inns* states that Absent special circumstances, a defendant must have a market share of at least 50% to be found guilty of monopolization. In this case, some special circumstances exist (mainly, very high barriers to entry because of lack of suitable land), but other circumstances suggest that unilateral action may be particularly difficult (mainly, the homogeneity of the product – Egyptian raw cotton). It seems that in this case each company's market share is insufficient to establish the possession of market power, and the monopoly claim fails. Note that M&M's 100% market share in cotton processing is irrelevant, because the relevant market in which the alleged antitrust violations occurred is the raw cotton market, where M&M has (at this point) a zero market share.

(b) Attempt to Monopolize: Requires three elements: anti-competitive conduct, a specific intent to monopolize, and a dangerous probability of achieving monopoly power (*Spectrum Sports*). Individual refusal to deal could in some circumstances be considered wrongful conduct (*Spectrum Sports*). So could exclusive dealing (*U.S. Healthcare*). We'll analyze separately the anticompetitive element in the refusal to deal and exclusive dealing claims.

- (i) Anti-competitive conduct – Duty to deal: *Aspen* and *Trinko* do not apply to the suits against the big three, since the cases relate to a duty to deal with rivals, and Sanders is not a rival of the big three because it does not grow cotton. The *Colgate* doctrine allows a firm to decide who it deals with, but *Lorain Journal* qualifies this right by prohibiting an RtD for the purpose to harming competition and acquiring or maintaining a monopoly. Since only M&M is allowed under Egyptian law to process cotton in Egypt, a refusal by each of the cotton growers to sell cotton to Sanders seems justified unless Sanders bears the costs of shipping the cotton out of Egypt (which would make the transaction economically infeasible for Sanders). For that reason, Sanders is likely more interested in forcing M&M to deal with it – allowing Sanders to use M&M's cotton mill to process Sanders' raw cotton. After having access to the mill, Sanders can compete with M&M in buying cotton from the growers. M&M is a rival of Sanders', so *Aspen* and *Trinko* apply. M&M does not offer processing services to anyone (it only sells processed cotton), so under *Trinko* it is unlikely that it would have a duty to offer those services to its rival. Such a duty to deal would also circumvent the Egyptian law granting the franchise. The essential facility doctrine, to the extent that it exists (*Trinko* neither recognized it nor rejected it), is inapplicable because the cotton mill is not an 'essential facility' – it has a monopoly only because another law grants it, not because economic reasons dictate a single facility. To use the essential facility doctrine here would circumvent the Egyptian law. Thus, it is infeasible to provide rivals access to the facility – the fourth prong of the *MCI Communications* test.

- (ii) Anti-competitive conduct – Exclusive dealing: Since this is a Sherman 2 claim, the exclusive dealing charge applies to each cotton grower’s separate promise to deal exclusively with M&M. In a part on *U.S. Healthcare* that was not in the casebook but was discussed in class, the court stated that exclusive dealing can give rise to monopolization or attempt to monopolize charges, if the intent and the dangerous probability of success elements are satisfied.
- (iii) Intent: The fact that M&M has a legal franchise to be the only cotton processor in Egypt, combined with the fact that it is not feasible to ship raw cotton out of Egypt, suggest that the cotton growers’ intent in agreeing to deal exclusively with M&M was not to acquire a monopoly, but to avoid being boycotted by M&M (see above, I.1(a)).
- (iv) Dangerous probability of success: The three-part test for exclusive dealing set in *Tampa Electric* (defining the product market, defining the geographic market; assessing the amount of foreclosure and its effects), even though it applies to a Clayton 3 violation, is a good indicator of the probability of success in achieving monopoly power. The relevant product market is Egyptian cotton (see III.1 (a)(i)), and the relevant geographic market is Egypt (because Egyptian cotton can only be grown in Egypt). Foreclosure varies from 27% to 33% (depending on the company and the measurement unit). This seems to be rather low, though given the high barriers to entry and the high concentration (but despite the homogeneity of the relevant product), foreclosure of that share might suffice to create a dangerous probability of a monopoly. However, Egyptian law already confers a monopoly on M&M, so the exclusive dealing obligation likely makes no competitive difference.

Conclusion: M&M probably does not have a duty to allow Sanders the use of its plant. The cotton growers also probably do not have a duty to deal with Sanders, because Egyptian law only allows M&M to legally process cotton in Egypt. The intent element is missing. If not for the Egyptian law, the exclusive dealing could have raised a dangerous probability of granting M&M a monopoly, but the Egyptian law already gives M&M this monopoly, so the exclusive dealing doesn’t make much of a difference. Thus, the Sherman 2 claim is likely to fail.

II. [20%] LTG sues ECC, NAC and UTC alleging price fixing of raw cotton in violation of Section 1 of the Sherman Act. Analyze this suit (again, ignoring the issues of standing and antitrust injury).

As in I.1, proving a Sherman 1 violation requires three elements – agreement, competitive effect and interstate commerce. Interstate commerce is affected for the reasons discussed above in the first paragraph of part I. Note that LTG’s suit is limited to price fixing – there is no claim of a refusal to deal, so no such claim should be analyzed.

1. Agreement

Proving that the three cotton growers had an agreement to manipulate cotton prices is difficult. They deny doing so, and Milo's comment is not dispositive since he's not a party to the alleged cartel (but only an accessory), and because he merely admitted to disposing of cotton – not to the collusion in acquiring it on the market. *HFCS* provides the legal framework for assessing the sufficiency of evidence for collusion. The non-economic evidence of collusion (Milo's comment and the fact that the big three's CEOs met and discussed the low cotton prices a week before cotton prices began to rise) is supplemented by economic evidence of two types:

(a) Economic evidence that collusion was feasible in the market: The homogeneity of Egyptian raw cotton, the very high barriers to entry (no additional land available to grow cotton) and the high concentration (C_3 is between 87% and 93%, depending on the measurement unit) suggest that collusion is relatively feasible. On the other hand, the existence of a single ultimate purchaser (M&M) may suggest a "power buyer" that can play the big three against each other and prevent a cartel from forming.

(b) Economic evidence that the market behaved anti-competitively: All we know is that prices suddenly rose after a period of decline, soon after the big three's CEOs met. This price change could be explained by a multitude of reasons. Regression analysis would be helpful in examining whether all other likely reasons for a price increase (e.g., rise in the price of inputs) do not explain the price increase.

Conclusion: Despite M&M's ability to disrupt cartels and the lack of a regression analysis that would suggest that the price increase cannot be attributed to reasons other than collusion, there seems to be a significant amount of evidence that, combined, might suffice to prove an agreement.

2. Competitive effect – Per se analysis

Even if the big three reached an agreement to pool resources, purchase cotton on the market to raise cotton prices, and dispose of the cotton through Milo's mess hall, there is no evidence of coordinating prices. However, *Socony-Vacuum* clarifies that per-se illegal price fixing includes not only express fixing of prices, but also any "combination formed for the purpose and with the effect of raising, depressing, fixing, pegging, or stabilizing the price..." Certainly, if the big three did agree on the rumored plan, the purpose and very likely the effect were to raise the price of cotton. In fact, *Socony-Vacuum* itself condemned a very similar plan to the one allegedly agreed upon by the big three.

3. Competitive effect – RoR

The competitive effect element is probably satisfied by a per-se illegality standard. However, if it is not, it is likely to be satisfied under a rule of reason analysis. There are no apparent efficiencies. *Addyston Pipe* refused to recognize as an efficiency setting of 'reasonable' prices. The anti-competitive harm is likely: buying cotton and eliminating it

(by having Milo serve it as dessert) has the effect of raising the price of cotton. An agreement between the big three is necessary, because if a single cotton grower would undertake the purchases, the other two would increase their own production and increase their market share in response to the rising price. Thus, without collusion no cotton grower would find it feasible to purchase cotton, and the plan to artificially increase cotton prices would fail.

Conclusion: There seems to be sufficient evidence to support the existence of an agreement. The plan would be very likely considered per-se illegal, and even if not – would be found anti-competitive under the rule of reason. Thus, LTG should succeed in its suit.

III. [30%] As the FTC, analyze whether you should object to the merger of M&M and ECC.

The M&M/ECC merger has two aspects: horizontal and vertical.

1. Horizontal Merger

Analysis is according to the 1992 Merger Guidelines. The failing firm doctrine is irrelevant in this case.

(a) Prima facie case:

- (i) **Market Definition:** The market seems to be Egyptian raw cotton. There may be a broader raw cotton market (also including American and Indian cotton). The test would be the degree of cross-elasticity of demand (*Du Pont*), and since this is a horizontal merger, the SSNIP methodology will apply (Guidelines §1.1): if a single firm produced all of the Egyptian cotton, would it find it profitable to raise prices 5% above the competitive level? There is insufficient evidence to determine conclusively, though the different use of Egyptian vs. other types of cotton (for high-end, fashionable clothes) suggests a separate market for Egyptian cotton.
- (ii) **Market shares:** We need to decide which measurement unit is more appropriate for measuring market shares: sales (in dollars), units sold (in tons), current capacity (acres of land currently used for growing cotton), or land reserves. The default measurement unit is sales in dollars, but other units are used when they illustrate more accurately the competitive power of each firm (e.g., when products in the market are heterogeneous and their prices differ significantly – *Du Pont*). Within the market definition (Egyptian cotton) the products are homogenous (customers do not distinguish between Egyptian raw cotton from different growers) and capacity constraints are similar. Therefore, unlike the situation in *Du Pont*, sales in dollars are an adequate measurement unit.

- (iii) Concentration: Using the market share figures for sales, pre-merger HHI is 2,808. You can use the shortcut to find delta: $2 \times 30 \times 5 = 300$. So, post-merger HHI is 3,108 (i.e., a highly concentrated market). This places us squarely in the guidelines' "presumed illegal" rubric. Note that in this case using other measurement units would still place us in the "presumed illegal" spot.

(b) Anti-competitive effects:

- (i) Unilateral effects: Raw Egyptian cotton is an undifferentiated goods market. Under §2.22 of the guidelines, a merger in an undifferentiated products market is likely to raise concerns regarding unilateral effects if: (1) Concentration levels are outside of the HHI safe harbors (they are in this case, see (a)(iii) above); (2) the merging firms' combined market share $\geq 35\%$ (borderline in this case: 35% by dollar sales and 35.5% by land use and land reserves, but 34.5% by tons); (3) Non-merging parties are unlikely to respond to the merged firm's output constraint by expanding their output sufficiently (unless technology improves cotton yield, more land is necessary to expand production, yet no additional land suitable to grow Egyptian cotton is available, so non-merging parties likely can't respond). Because element (3) creates such a constraint on rival's responses, even the borderline market share in element (2) may suffice to raise a concern regarding unilateral effects resulting from the merger.
- (ii) Coordinated effects: The most important factor affecting coordinated interaction is market concentration. Here, post-merger C_3 is between 93.5% and 96.5% (depending on the measurement unit) - an extremely high percentage. HHI figures similarly indicate very high concentration. The merger reduces by half the market share of the small firms (all but the top three) who could respond to an output restriction by a 3-firm cartel, from 10% to 5%. Barriers to entry are very high. Thus, if the three firms can coordinate their actions, they could act as a monopolist.

Whether the three firms can coordinate their actions depends on costs of agreeing on terms of coordination, costs of detecting deviation and costs of punishing these deviations. HFCS discusses the indicators of a market susceptible to collusion. The small number of firms involved in the cartel and the high barriers to entry suggest that collusion would be relatively easy. On the other hand, the existence of a single customer (M&M), who is also the largest cotton producer, may suggest that it would act as a 'power buyer' and disrupt a cartel (since the cartel would raise M&M's cost of raw cotton). If M&M can pass these increased costs to its customers without losing profits, or if the cartel can act as a monopsony and lower its costs of inputs for growing cotton (e.g., seeds, water, etc.), passing this reduced cost on to M&M, it might find it profitable to allow a cartel.

Conclusion: The merger is unlikely to raise concerns of coordinated effects unless it is demonstrated that M&M does not have an incentive to disrupt such a cartel (e.g., a cartel only towards suppliers of the cotton growers, not towards the cotton processors). On the other hand, the merger probably raises concerns regarding unilateral effects.

(c) Entry: Barriers to entry seem nearly insurmountable as long as Egyptian cotton remains a separate market from other types of cotton. No additional suitable land is available, so new entrants can only replace incumbents. Unless crop yield improves, incumbents are also unable to expand.

(d) Efficiencies: We are not told what efficiencies the parties claim from the merger. We know that the large growers have slightly lower costs of production due to economies of scale. The merger may let the small farms owned by M&M benefit from the economies of scale of the larger ECC (assuming MES is larger than M&M's pre-merger production of 3.5% of Egyptian cotton tonnage).

Conclusion: There is a strong prima facie case and some indications of likely unilateral, and perhaps coordinated, effects from the merger. Entry is highly unlikely. Efficiencies, while existing, do not seem so great that they rebut the prima facie case. Thus, the government would probably challenge the horizontal aspect of the merger.

2. Vertical Merger

(a) *Fruehof*: The merger between M&M and ECC involves a 34.5-35.5% market share in raw cotton and a 100% share in cotton processing. Under the *Fruehof* analysis, there are three potential competitive concerns: (i) Foreclosure of cotton processors from access to raw cotton; (ii) Foreclosure of cotton growers from access to cotton processing facilities; (iii) Forcing potential competitors in either market to enter the market only on a vertically integrated basis (i.e., both grow and process cotton).

Both market shares and concentration are higher in this case than they were in *Fruehof*. Further, barriers to entry into both cotton growing and cotton processing are extremely high: additional land suitable for growing cotton is unavailable and Egyptian law grants a processing monopoly. This would generally raise significant foreclosure concerns in both markets. However, as long as the Egyptian law is in force, the concern about foreclosing access to cotton growers is moot because no additional cotton processor is allowed (unless information indicates that a change in the Egyptian law is expected or that a change in transportation technology makes it feasible to transport raw cotton further, outside of Egypt). Foreclosure of access to cotton processing is possible (M&M can now limit its purchases from other cotton growers to favor its own cotton growing business), but given that it already possesses monopsony power over cotton growers, it is not clear what it would gain by monopoly leverage into cotton growing. Foreclosure might be a concern if it enables M&M to evade rate regulation (see 1984 Guidelines analysis issue (ii)). The Egyptian law moots the concern about two-level entry – as long as the law

grants a cotton processing monopoly, two-level entry is not possible. The impossibility of two-level entry makes foreclosure concerns more severe than they would otherwise be.

(b) Section 4.2 of the 1984 Guidelines: The guidelines recognize several situations in which vertical mergers may cause competitive problems:

- (i) Form a barrier to entry by requiring two-level entry – this is not relevant for the reason discussed above (*Fruehof* analysis issue (iii)).
- (ii) Evading rate regulation – Egyptian law imposes a price cap on sales of cotton fiber to Egyptians, but not to non-Egyptians. If M&M can divert all its sales to foreigners without violating Egyptian law, then it can easily sidestep the price regulation. If it can't, and the price cap is not a fixed price but a certain margin above the cost of raw cotton, it can increase its profits by monopolizing the cotton growing segment and artificially inflating the price of raw cotton that its processing subsidiary buys. In that case, the vertical aspect of the merger would raise significant concerns.
- (iii) Facilitating collusion by eliminating a disruptive buyer – M&M, as a “power buyer” (in fact, the only buyer) of raw Egyptian cotton, can thwart cotton grower cartels (see III.1(b)(ii)). If its purchase by EEC would remove its incentive to prevent the cartel, then the vertical aspect of the merger would increase the risk of collusion occurring among cotton growers. However, M&M/EEC would reap only a portion of the profits of such collusion, while it would suffer the entire cost of the higher cotton prices charged by the cartel. Thus, the merged company is still likely to object to a cartel, unless it can pass the increased raw cotton costs to its customers without losing profits, or unless it can limit the cartel to collude not in selling cotton, but only in buying inputs for growing cotton (e.g., seeds, water, etc.). The reduced cost from such collusion (which harms the input suppliers) could then be passed to M&M through lower cotton prices. If this scenario is likely, the vertical aspect of the merger may allow monopoly leveraging or collusion among cotton growers.
- (iv) Facilitating collusion by acquiring a firm that can monitor up/downstream firms and punish deviation from a cartel – The analysis is the same as (iii) above. M&M has the ability to police a cartel, but would only have the incentive to form a cotton growing cartel in narrow circumstances mentioned in (iii).

Conclusion: The vertical aspect of the merger would raise competitive concerns only if monopoly leveraging is a feasible strategy for M&M, which would occur if the Egyptian price cap is linked to the cost of raw materials and cannot be avoided (see (ii) above), or if M&M can police a cartel that would not collude in selling cotton, but would collude in buying inputs for growing cotton.